

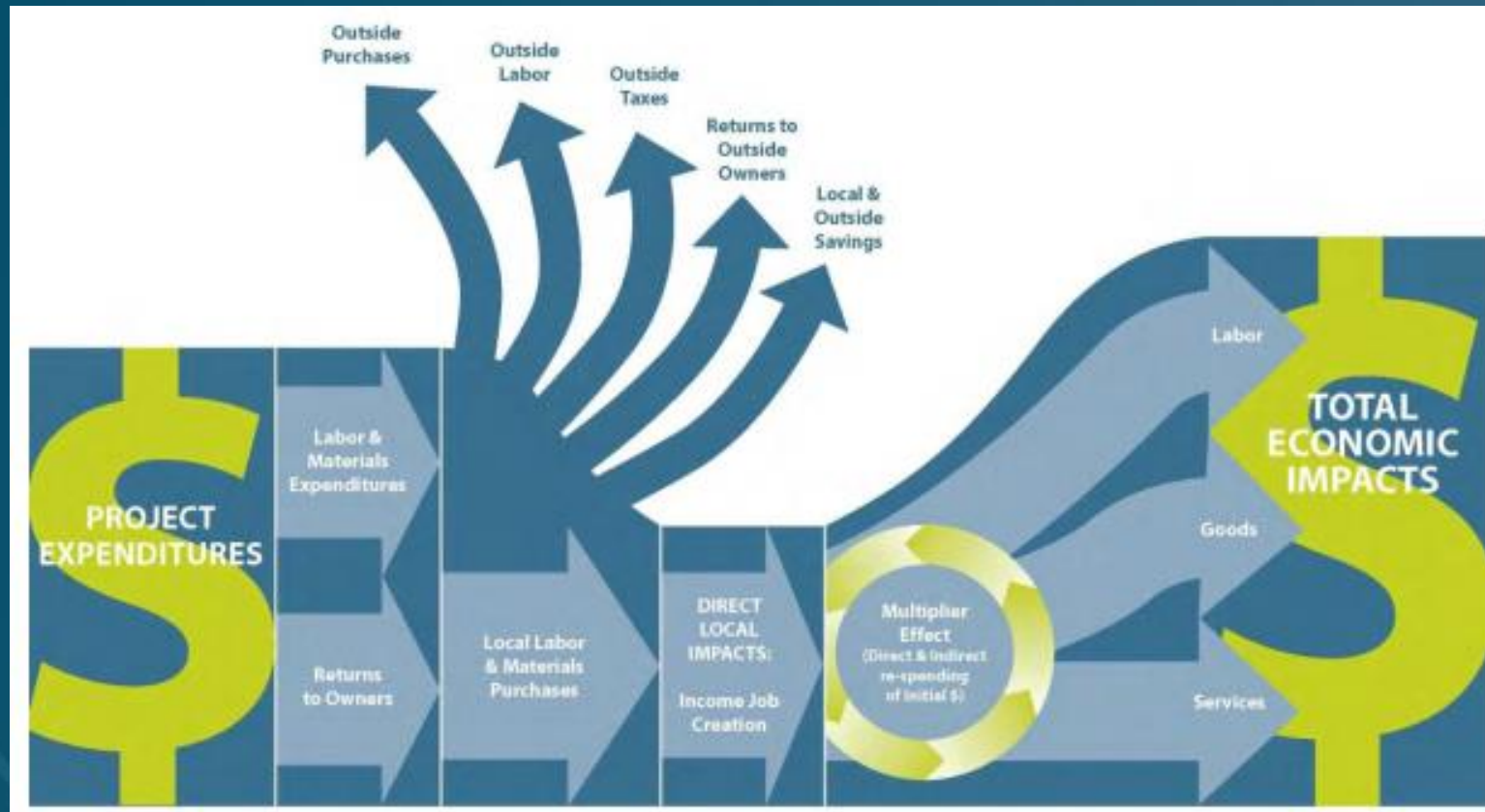


## Economic Impact Measurement

# Scenarios for Impact Analysis

- Scenarios refer to potential new uses of Washington's coastal waters
  - Marine Renewable Energy (Wind, Wave, Tidal)
  - Aquaculture (new types, locations)
  - Mining
  - Bioextraction
  - Dredge Disposal (in new locations)
- Coordinate with the State on project specifics

# Economic Impacts



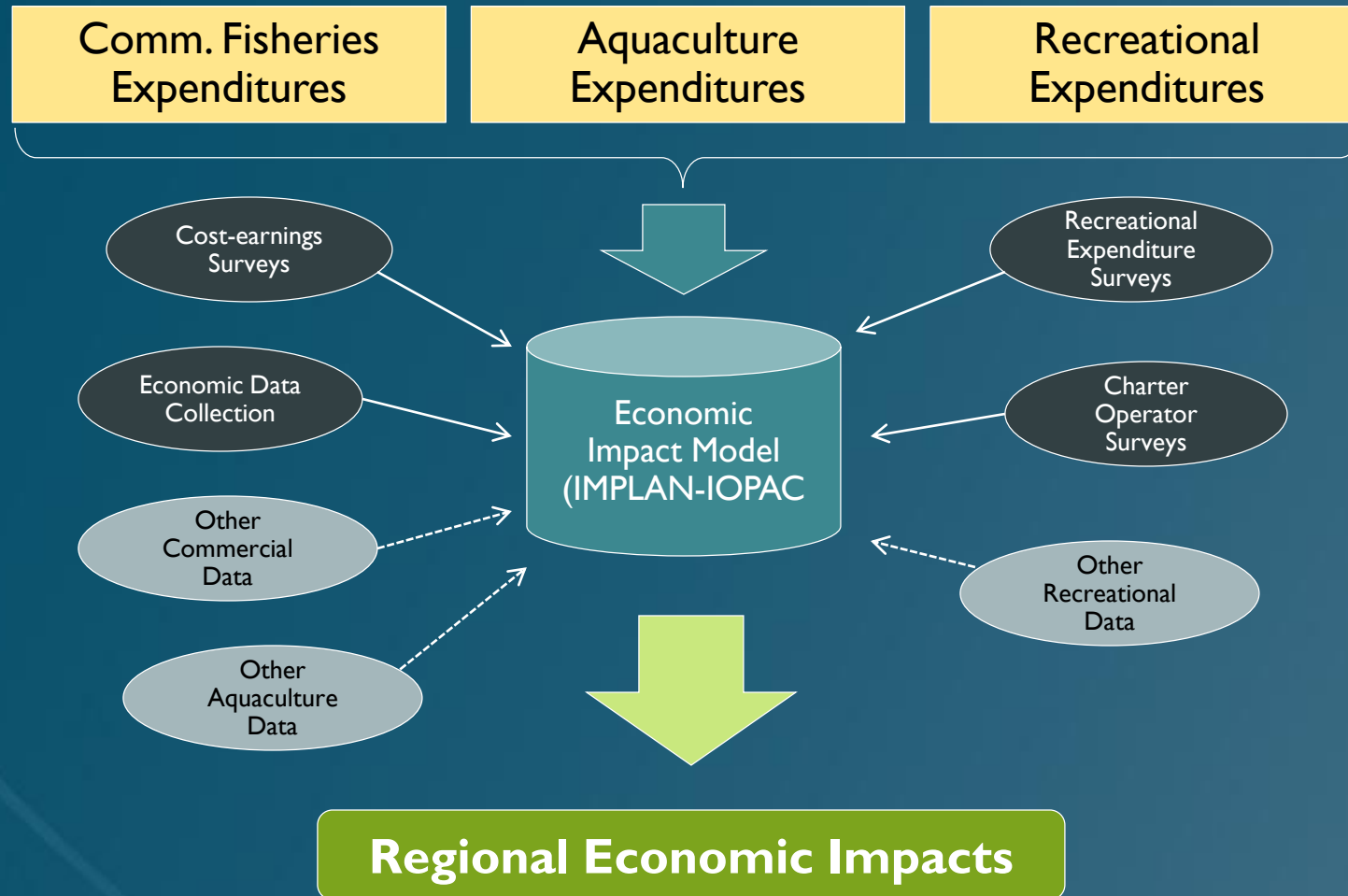
Source: Northern Economics, Inc. *The Economic Impact of Shellfish Aquaculture in Washington, Oregon and California*. [www.pacshell.org/pdf/Economic\\_Impact\\_of\\_Shellfish\\_Aquaculture\\_2013.pdf](http://www.pacshell.org/pdf/Economic_Impact_of_Shellfish_Aquaculture_2013.pdf)

# **“Total” Economic Impacts**

- Direct Effects
  - Original round of expenditures
- Indirect Effects
  - Spending by businesses that sell to the directly-affected businesses (subsequent rounds)
- Induced Effects
  - Additional economic activity generated by local households' spending of wages and profits



# Data for Economic Impact Modeling



# Economic Leakage

**Consumer purchases new imported car for \$100,000**

→ 60% goes overseas = \$60,000 (leakage)

→ 20% pays for transportation, insurance, etc. = \$20,000 (leakage)

**→ 20% goes to the local dealership = \$20,000**

→ 50% pays rent, utilities, taxes, etc. = \$10,000 (leakage)

**→ 50% pays sales commission and profit = \$10,000**

→ 50% is owner's profit = \$5,000 (Seattle) (leakage)

**→ 50% pays sales commission = \$5,000 (local impact)**

# Economic Impact Modeling Approaches

- Level I
  - Multipliers and other measures derived from existing studies
- Level II
  - Use of off-the-shelf economic impact models (IMPLAN)
- Level III
  - Enhanced economic data collection derived from direct interviews

## Level I Approach

- Review existing economic studies
- Glean relevant impact measures/multipliers
- Apply relevant measures to local economic variables to derive impacts



## Level II Approach

- Start from Level I
- County-wide economic impact models/multipliers
- Verification against other published data

## Level III Approach

- Start from Level II
- Enhanced data collection to:
  - Fine-tune industry spending patterns
  - Identify locations of main suppliers
  - Identify residence of labor force
  - Identify locations of “markets” (including residence of visitors)